REMARKS

Claims 1-6 are pending in the present application, claims 5 and 6 having been added herein. The Office Action and cited references have been considered. Favorable reconsideration is respectfully requested.

The drawings were objected to due to the absence of a "prior art" legend on Figures 1, 3, and 5 and because the Examiner could not identify several reference charaeters of the drawings in the specification. Figures 1, 3, and 5 have been amended to include the appropriate legend. With respect to the B "down arrows", the Examiner's attention is invited to the brief description of the drawings with reference to Figure 6, which identifies the line B-B in Figure 4. Additionally, the B "side arrow" shown in Figure 4 is now referred to on page 4, line 18 of the specification, in place of arrow "P". Accordingly, withdrawal of the objection to the drawings is respectfully requested.

The Examiner requested a new title that is more descriptive of the invention. An amendment has been made in an attempt to overcome this objection. Withdrawal thereof is respectfully requested.

The disclosure was objected to for failure to include the appropriate section headings. Amendments have been made to add these section headings. Withdrawal of the objection is respectfully requested.

Claim 4 was objected to due to the use of the abbreviation "approx.". This has been changed to the word "approximately". Withdrawal of the rejection is respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. §112, second paragraph. These claims have been amended to overcome this rejection. Withdrawal thereof is respectfully requested.

Claims 1-4 were rejected under 35 U.S.C. §102(b) as being anticipated by Patelke (U.S. Patent 5822972). This rejcction is respectfully traversed for the following reasons.

Claim 1 reeites a set, for fixed eombs on textile combing machines, comprising a plurality of needles which are arranged adjacent to each other, each needle comprising a foot scction and a tip section, and a free opcning area formed betwccn thc tip seetions of adjacent needles, in which the fibres to be combed can penetrate during combing, wherein the needles are produced by punching, at least the front end of the tip section is angular or previously bent, and the needle density is > = 33 needles per cm. This is not taught, disclosed, or made obvious by the prior art of record.

Patelke teaches an air curtain nep separation and detection device comprising a toothed rotating cylinder that receives the fiber sample and impacts and propels at least a portion of the trash and neps along an ejection path. Further, an air curtain is directed toward and passed across a portion of the toothed surface of the rotating cylinder.

In contrast, the device according to amended claim 1, is directed to a fixed comb comprising a plurality of needles which arc arranged adjacent to each other, whercby each needle comprises a foot scction and a tip section, and a free opening area formed between. The free opening area 5 is shown in Fig. 2.

Patelke is not directed to a fixed comb and there is no disclosurc with respcct to the configuration of the teeth. It is only said that the teeth 11 on the cylinder 10 are preferably raked at an angle of about 9 degrees forward of the direction of rotation (see column 4, line 55), but therc is no disclosurc that they have a foot scction and a tip section, that at least the front end

of the section is angular or previously bent, or that there is a free opening area between separate tip section.

In column 5, starting in line 17, it is described, that the neps of the fiber are propelled away by the force of impact with the teeth 11. In fact, Patelke states that "this apparatus, ... would not typically be appropriate for a device that was used for processing sellable fibers in a production environment. Therefore, an apparatus aceording to the present invention is designed more for testing fiber samples for neps, and less for separating good fibers from the other components of the fiber sample." Col. 5, lines 10-16. Accordingly, one of ordinarily skill in the art would not look to Patelke to solve the problems one would encounter in designing a needle set that "enables a high combing standard, on the one hand, ensuring that any impurities in fibre hands made of cotton or wool are reliably removed, and that the fibres are eleanly parallelized." Specification, page 1, lines 12-15

Further, there is no disclosure that the needles are produced by punching, which renders it possible to produce the configuration as shown in Fig. 4, namely, at least the front end of the tip section is angular or previously bent, and the needle density claimed can work in a needle set in the claimed combination.

Thc above distinguishing features of claim 1 as applied to a fixed comb according to amendcd claim 1 show a number of advantages and features.

a) Fixed combs are provided with just one row of needles whereas combing cylinders are provided with a number of rows of needles one after the other. Therefore, the one-needle row of the fixed comb must show the same performance as the number of rows of a combing cylinder.

b) Fixed combs in combing machines are known since more than a hundred years

and the configuration and arrangement of the needles has been the object of numerous attempts for improvement. The embodiment according to the invention was never before used in a fixed comb, thus solving a long felt need for an improved needle set.

c) The higher density of the needles according to the invention results in a higher impact on each of the needles so that someone skilled in the art would have expected up to now that the known density of needles would already constitute an upper limit in devices such as the fixed comb set of Applicant's claimed combination. That is, until Applicant's claimed invention, one of ordinary skill in the art would not have expected a fixed comb needle having a density of greater than or equal to 33 needles per centimeter, to work. According to the invention it was recognized that by using a smaller deformation during production materials with a high friction resistance can be used like chrome-vanadium-steel-alloys, which can resist even the resulting impacts if a higher density of needles is used.

d) Someone skilled in the art also would have expected that the free regions between the needles would fully or partially be closed after some time of operation. However, Applicant has unexpectedly determined that as the needles used according to the invention are produced by modern stamping techniques, the lateral planes of the needles are exactly parallel to each other and to neighboring needles so that a jam and closing of the free space is avoided.

e) Someone skilled in the art further would have expected that due to the higher needle density in a fixed comb according to the invention, the needles would not fully penetrate into the fibers so that part of the fibers would not be combed completely. Due to the inventive configuration of the tips, nevertheless the full width and depth of the fibers is engaged and combed, even with modern high speed machines.

f) The higher needle density with an inventive fixed comb provides a full

combing and a high parallelism of the fibers and further impurities and short fibers are withheld and can be removed.

g) The fixed comb according to the invention provides an excellent combing performance and lifetime as well, what is contrary to all expectations.

h) If one assumes a fiber density of a thousand fibers/cm and a needle density according to the prior art of, e.g., 23 needles/cm between two neighboring needles, 43 fibers can be found, whereas according to the inventive needle density of, e.g., 38 needles/cm, only 26 fibers can be found. This means that much more impurities can be combed out and that each fibre is treated more extensively, providing significantly unexpected and improved results.

For at least these reasons, Applicant respectfully submits that claims 1 is patentable over the prior art of record.

Claims 2-6 depend from and include the recitations of claim 1. Applicant submits that these claims are patentable at least for the reasons discussed above with the respect to claim 1.

In view of the above amendment and remarks, Applicant respectfully requests reconsideration withdrawal of the outstanding rejections of record. Applicant submits that the application is in condition for allowance and early notice to the effect is most earnestly solicited.

If the Examiner has any questions, he is invited to contact the undersigned at 202-628-5197.

Respectfully submitted,

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